

GRISHINA, V.I.; LATSIMIK, G.Ye.; SIVOSHINSKIY, D.S.; SVOBODA, Yu.F.;
SHMOL', S.E.

Isotope method for the determination of fat assimilation. Vop.
med. khim. 8 no.2:214-217 Mr-Ap '62. (MIRA 15:4)

1. Chair of medical radiobiology and Chair of infectious diseases,
Central Institute for Postgraduate Training of Physicians, Moscow.
(FAT) (ABSORPTION (PHYSIOLOGY)) (IODINE-ISOTOPES)

LATSINIK, G.Ye.; SHCHERBAK, Yu.F.

Protein fractions in the blood in dysentery and brucellosis.
Sov. med. 25 no.4:76-83 Ap '62. (MIRA 15:6)

1. Iz kliniki infektsionnykh bolezney (zav. - deystvitel'nyy
chlen AMN SSSR prof. G.P. Rudnev) TSentral'nogo instituta
usovershenstvovaniya vrachey na baze Gorodskoy bol'nitsy imeni
S.P. Botkina (glavnyy vrach - prof. A.N. Shabanov).
(BLOOD PROTEINS) (BRUCELLOSIS) (DYSENTERY)

RUDNEV, G.P.; TKACHEV, P.G.; ZIAZEV, A.K.; LATSEVIK, G. Ye.; SHCHERBAK, Yu.F.

Evaluation of some biochemical indices in epidemic hepatitis.
Kaz. med. zhur. no.5:37-40 S-0'63 (MIRA 16:12)

1. Kafedra infektsionnykh bolezney (zav. - deystvitelel'nyy chlen AMN SSSR prof. G.P. Rudnev) TSentral'nogo instituta usovershenstvovaniya vrachey.

SOBOLEV, V.N.; GIVENTAL', N.I.; SHCHERBAK, Yu.F.

Intramuscular use of tetracycline antibiotics in brucellosis in
an experiment and in a clinic. Trudy TSIU 68:140-144 '64. (MIRA 18:5)

L 8421-65 Pa-4 AMD/APGC(c)

ACCESSION NR: AP4039588

S/0016/64/000/006/0074/0076

AUTHOR: Sorochenko, Ya. I.; Shcherbak, Yu. F.

B

TITLE: Allergic indices of intracutaneous injection of therapeutic brucellosis vaccine combined with hyaluronidase (preliminary report)

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 6,
1964, 74-76

41-

TOPIC TAGS: brucellosis, undulant fever, brucellosis diagnosis,
brucellosis vaccine with lidase, intracutaneous injection, allergic
reaction, hyperemia

ABSTRACT: Allergic reactions to intracutaneous injections of therapeutic brucellosis vaccine with a hyaluronidase preparation were investigated in brucellosis patients, patients with polyarthritis of a nonbrucellosis etiology, and healthy persons for possible use in brucellosis diagnosis. A 0.2 ml mixture of therapeutic brucellosis vaccine (25 million bacteria) with lidase (8 units) added to intensify allergic reactions was injected into each hip at two symmetrical points in equal amounts. Three to five minutes after injection, a

Cardl/3

L 8471-65

ACCESSION NR: AP4039588

O

nonspecific reaction characterized by a papule and a hyperemic ring 5 to 6 cm appeared at the injection site in all subjects and disappeared 1 to 1½ hours later. No further reactions were found in healthy persons or in patients with polyarthritis of a nonbrucellosis etiology. However, in brucellosis patients hyperemia appears at the injection site 12 to 24 hrs later and gradually disappears after the second day. Also, other reactions were often observed including intensified pain in joints, higher temperature, and depression. In additional experiments on patients with chronic brucellosis, intracutaneous injection of brucellosis vaccine and lidase produced skin reactions in many patients with negative Byurn tests and increased serological reaction titers in all cases. Intensification of allergic reactions with addition of lidase to the brucellosis vaccine was confirmed by experimental data. The use of intracutaneous injections of brucellosis vaccine with lidase for brucellosis diagnosis appears feasible since allergic reactions are found only in brucellosis patients. Orig. art. has: None.

Card 2/3

L 8471-65

ACCESSION NR: AP4039588

ASSOCIATION: Tsentral'nyy institut usovershenstvovaniya vrachey,
Moscow (Central Institute for Advancement of Physicians)

SUBMITTED: 18Jul63 ENCL: 00 SUB CODE: LS

NR REF SOV: 004 OTHER: 001

Card 3/3

ПРОГРАММА РАДИОАКТИВНОСТИ

Оценка радиоактивной проницаемости по методу
ГИАЛ в гипофизарной зоне. Трэй ФСБУ 114206-211-161.
(МТРА 18:6)

Л. А. Байдукова, А. А. Борисов (канд. физ.-мат. наук, доцент кафедры радио-
иммунологии, кафедры медицинской радиологии
и г. проф. В. А. Малышев (Генеральный директор Центра изучения
радиоактивности).

ПОДГА, Lyudmila Alekseyevna, kand. med. nauk; SHCHEGOLEV, Yu.F.,
red.

[Scarlet fever] Sharlatina. Moskva, Meditsina, 1965.
18 p. (MIRA 18:12)

LATSINIK, Garri Yefimovich; SHCHERBAK, Yuriy Fedorovich; NEYMAN,
E.I., red.

[Infectious hepatitis; Botkin's disease] Infektsionnyi
gepatit; bolezn' Botkina. Moskva, Meditsina, 1965 29 p.
(MIRA 18:12)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001548820011-1

NOV 1964

RECORDED BY
SAC - LOS ANGELES
FBI - LOS ANGELES
1964

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001548820011-1"

KOROTICH, A.S., dotsent; SHCHERBAK, Yu.N., nauchnyy sotrudnik;
KONONYUK, G.Ya.; PIKHULYA, K.F.; ROTOV, I.V., kand. veter.
nauk; LEDIN, V.Ye.; KURAKINA, T.A.

Analysis of the vaginal mucus in cattle as a method for
diagnosing brucellosis. Veterinariia 39 no.10:78-86 O '62.
(MIRA 16:6)

1. Kiyevskiy nauchno-issledovatel'skiy institut epidemiologii
i mikrobiologii (for Korotich, Shcherbak).
2. Donetskaya oblastnaya veterinarno-bakteriologicheskaya laboratoriya
(for Kononyuk).
3. Donetskaya oblastnaya sanitarno-epidemio-
logicheskaya stantsiya (for Pikhulya).
4. Dal'nevostochnyy nauchno-issledovatel'skiy veterinarnyy institut (for Rotov).
5. Respublikanskaya veterinarno-bakteriologicheskaya labora-
toriya Ministerstva sel'skogo khozyaystva UkrSSR (for Ledin).
6. Zaveduyushchaya serologicheskim otdelom L'vovskoy oblastnoy
veterinarno-bakteriologicheskoy laboratorii (for Kurakina).

(Brucellosis in cattle)
(Vaginal smears)

KOROTICH, A.S.; SLESARENKO, V.V.; ISAYENKO, L.V.; SHCHERBAK, Yu.N.

Some results in the control of brucellosis and prospects for its
elimination in the Ukrainian S.S.R. Zhur. mikrobiol. epid. i
immun. 31 no.2:104-107 D '60. (MIRA 14:6)

1. Iz Sanitarno-protivoepidemicheskogo upravleniya Ministerstva
zdravookhraneniya USSR, Kiievskogo instituta epidemiologii i
mikrobiologii i Basseynovoy sanitarno-protivoepidemicheskoy
stantsii Ministerstva zdravookhraneniya USSR.
(UKRAINE—BRUCELLOSIS)

SHCHERBAK, Yury (Kiev)

Otdelenie epidemiologicheskogo zdorov'ya nos. 4 u 19-21 Ap'63
(MIRA 1627)
(KIEV—EPIDEMIOLOGICAL RESEARCH)

SHCHERBAK, Yu.N.

Characteristics of the epidemiology of brucellosis in man caused
by cattle in the Ukrainian S.S.R. Vrach. delo no.1:109-112 Ja'64
(MIRA 17:3)

1. Kiyevskiy nauchno-issledovatel'skiy institut epidemiologii i
mikrobiologii.

SCHERERAKO, I.S.

Tourmaline of the Khoshchovato region in the middle of the Southern
Bug Valley. Min. sbor. no.15:338-343 '61. (NIRA 15:6)

1. Institut geologicheskikh nauk AN USSR, Kiyev.
(Southern Bug Valley--Tourmaline)

VOLODARSKIY, I., inzh.; SHCHERBAKO, V., inzh.

"Moletronics," radio engineering on a molecular level.
Nauk i zhizn' 29 no.2:65-66 F '62. (MIRA 15:3)
(Miniature electronic equipment)

SHCHERBAKOV, A., inzh.; VLADIMIRSKIY, O., inzh.

Yarn from caprone waste. Prom. koop. 13 no. 4:26-27 Ap '59.
(MIRA 12:6)
(Kiev--Textile industry) (Textile waste)

SHCHERBAKOV, A. [Shcharbakou, A.]

The neurosurgeon. Rab. i sial. 35 no.2:2-3 F '59.

(MIRA 12:4)

(NERVOUS SYSTEM--SURGERY) (WOMEN AS PHYSICIANS)

GLUZHEKIN, Isaak Yefimovich, SHCHERBAKOV, Aleksey Arsent'yevich, GIVETIKOV, P.I.,
red.; BABOCHKIN, A.T., tekhn.red.

[Manual for training radiotelegraphers] Posobie po obucheniiu radio-
telegrafistov. Voen. izd-vo M-va obor. SSSR, 1958. 109 p.
(MIRA 11:8)

(Radiotelegraph-Operators' manuals)

SH CHERBAKOV, A.A.

Some problems in public health, sanitation, and hygiene in the
works of N.G. Chernyshevskii. Vrach.delo no.10:1101-1103 O '58
(MIRA 11:11)

(CHERNYSHEVSKII, NIKOLAI GAVRILOVICH, 1828-1889)
(PUBLIC HEALTH)

SHCHERBAKOV, A.A.

Role of N.G.Chernyshhevskii in the development of the physiological trend in Russian medicine. Sov. zdrav. 13 no.3:41-46 My-Je '54.
(MLRA 7:8)

1. Iz Vinnitskogo meditsinskogo instituta (dir. dotsent S.I.Korkhov)
(CHERNYSHEVSKII, NIKOLAI GAVRILOVICH, 1828-1889)

GURVICH, V.L. [deceased]; SKOBLO, A.I.; SMIDOVICH, Ye.V.; ZAYTSEVA, N.P.;
KAZANSKAYA, N.S.; PETROV, V.N.; SUVOROV, A.S.; SHCHERBAKOV, A.A.

Continuous coking of heavy petroleum residues on powdered coke.
Trudy MINKhGP no.24:298-310 '59. (MIRA 13:3)
(Petroleum coke)

SHCHERBAKOV, A.A., podpolkovnik, letchik-ispytatel' pervogo klassa;
KOTIK, M.G., inzh.

Stability of the supersonic airplane in banking. Vest.
Vozd. Fl. no.1:51-56 Ja '60. (MIRA 13:8)
(Aerodynamics, Supersonic)

1/2 struk
Vest. Aerodynamics
Supersonic

KOTIK,M.G., inzh.; SHCHERBAKOV, A.A., podpolkovnik, letchik-ispytatel'
pervogo klassa

Lateral stability and control of supersonic planes.
Vest.Vozd.Fl. no.8:66-74 Ag '60. (MIRA 13:9)
(Aerodynamics, Supersonic)

SHCHERBAKOV, A.A., podpolkovnik, letchik-ispytatel' pervogo klassa;
LUNYAKOV, V.S., inzh.; SOLOV'YEV, V.V., inzh.; SHAPOVAL, Yu.G.,
inzh.

Influence of a vibration damper for pitching on the longitudinal
stability and controllability of planes. Vest.Vozd.Fl. no.7:59-63
Jl '61. (MIRA 14:8)

(Stability of airplanes, Longitudinal)
(Airplanes, Military--Handling characteristics)

VLASOV, D.; SHCHERBAKOV, A.

Bundle method of loading seagoing vessels with lumber.
Mor.flot 25 no.6:12-13 J1 '65.

(MIRA 19:1)

1. Glavnyy inzhener Leningradskogo lesnogo porta (for
Vlasov). 2. Starshiy inzhener tekhnicheskogo otdela
Leningradskogo lesnogo porta (for Shcherbakov).

USSR/Agriculture - Soyabeans
Calcium

Mar/Apr 49

"Certain Changes in the Anatomical Structure of Soya
Stems Under the Influence of Calcium and Magnesium,"
A. Shcherbakov, Inst of Plant Physiol imeni K. A.
Timiryazev, Acad Sci USSR, 5 pp

"Botan Zhur" Vol XXXIV, No 2

Both minerals in large doses accelerated growth of
plant. Among other changes noted, woody area in
stems was wider than in untreated plants; cells of
bark were compressed. Anatomic analysis and exper-
iment have shown that large doses of calcium exert a

2/5079

USSR/Agriculture - Soyabeans
Calcium (Contd.)

Mar/Apr 49

favorable influence on development of plant and yield.
Increasing magnesium has opposite effect.

2/5079

USSR/Biology

Card 1/1 Pub. 42-7/8

Author: Scherbakov, A. A.

Title: Mikhail Maksimovich, Naturalist and Botanist

Periodical: Izv. AN SSSR, Ser. biol., 4, 76-96, 1954

Abstract: This article eulogizes Mikhail Aleksandrovich Maksimovich, a prominent Ukrainian naturalist, scientific worker, and educator of the first half of the 19th century, on the occasion of 150 years since his birth. He was born on September 15, 1804. He received his master's degree in January, 1827 and in 1828 became a lecturer in botany at the Moscow University. In 1833 he became a professor. In 1871 he was elected corresponding member of the Academy of Sciences. He was the author of several books and articles in botany.

Institution: Institute of History of Natural Science and Technique, Academy of Sciences USSR

Submitted: April 15, 1954

SHCHERBAKOV, A. A. Cand Chem Sci -- (diss) "Extraction of furfural from local
and new kinds of raw material, and its stabilization." Riga, 1957. 17 pp
(Acad Sci Latvian SSR. Inst of Forestry Problems), 230 copies (KL, 42-57, 91)

-10-

AUTHORS:

Shecherbakov, A.A., Yur'yev, Yu.K.

SOV/60-32-2-25/56

TITLE:

The Effect of Preliminary Processing of Plant Raw Material by Organic Solvents on the Formation Dynamics and Yield of Furfurole (Vliyaniye predvaritel'noy obrabotki rastitel'nogo syr'ya organicheskimi rastvoritelyami na dinamiku obrazovaniya i vykhod furfurola)

PUBLISHER:

Zhurnal prikladnoy khimii, 1959, Vol XXXII, Nr 2,
pp 574-582 (USSR)

ABSTRACT:

The preliminary processing of pentosan-containing raw materials by various solvents increases the output of furfurole by preventing resinification during hydrolysis. In the experiments hydrolysis was carried out by a 12% solution of hydrochloric acid. Table 1 shows that the pentosans in corn cobs, barley husks, oats chaff, etc are most easily hydrolyzed. The preliminary treatment of the raw materials by alcohol, ether, chloroform, benzene, gasoline, CCl_4 , etc has a considerable effect on the furfurole output as well as on the dynamics of its formation. If the raw material is preliminarily treated by vaseline oil, diesel fuel, etc and then hydrolyzed by a

Card 1/2

SCW/EC-32-2-25/56

The Effect of Preliminary Processing of Plant Raw Material by Organic Solvents
on the Fermentation Dynamics and Yield of Furfurale

10-% solution of sulfuric acid, the output of furfurole increases by 43.4% in comparison with the yield without the solvents.

There are 2 tables and 11 references, 8 of which are Soviet, 1 American, 1 English, and 1 German.

SUBMITTED: July 1, 1957

Card 2/2

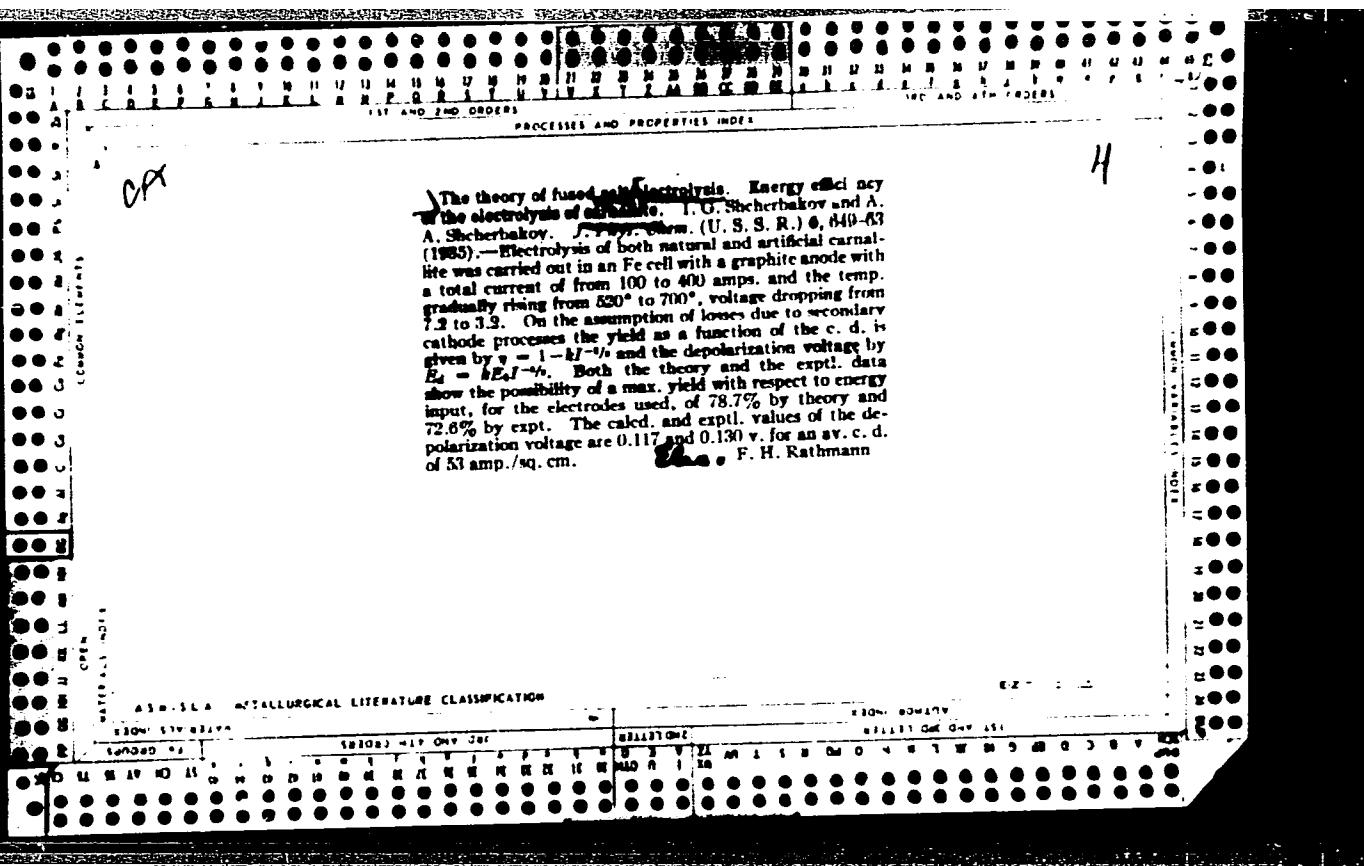
SHCHERBAKOV, A.A.

Use of plant waste for the preparation of resins based on furfurole.
Khim. v shkole 15 no.2:72-75 Mr-Ap '60. (MIRA 14:5)

1. Ternopol'skiy meditsinskiy institut.
(Furaldehyde) (Resins, Synthetic)

SHCHERBAKOV, A.A.

Degree of swelling of plant wastes and its effect on the yield
of furfurole. Dokl. LPI 5 no. 1/2:109-113 '63. (MIRA 17:6)



Hydrogenation of oils with nickel formate catalyst at
the Kazanak works. Shcherbakov, Kaplanov and Zolo-
tov. *Mashinnoe Zhivote Delo* 11, 244-6 (1935).—Opera-
tion with nickel formate catalyst at the Kazanak works.
E. Etinburg and M. Popov. *Ibid.* 246-7.—Use of nickel
formate catalyst at the Voronezhsk hydrogenation works.
B. Malaya. *Ibid.* 247-9.—Methods of production of the
catalyst and its uses in hydrogenation of oils are described
Chas. Blanc

27

ASR SEA - METALLURGICAL LITERATURE CLASSIFICATION

3c

B - I - 8

DÉHYDRATION OF MAGNESIUM SULPHATE IN GAIL-LARD TOWERS. A. S. Mikulinski and A. A. Schtscherbakov (J. Chem. Ind. Russ., 1936, 13, 1354-1356). Aq. $MgSO_4$, saturated at 20° , falls through a current of air at 200° , to yield $MgSO_4 \cdot 2H_2O$, which is briquetted. The briquettes, after treatment with saturated $MgSO_4$, are coherent and practically non-hygroscopic, and may be transported without packing.

R. T.

ASIAN METALLOGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001548820011-1"

The electromotive force of polarization in the electrolysis of fused carnallite. I. G. Shcherbakov, A. A. Shcherbakov and B. P. Markov. *J. Applied Chem.* (U. S. S. R.) 11, 1584-8 (in French, 1938) (1939). The previously described (cf. Drossbach, *C. A.*, 32, 2929^a) method was used. In the increase of the c. d. during the electrolysis of fused carnallite, the polarization potential also slightly increased; this, probably, was connected with the change of anode potential and of the concomitant polarization at the cathode. The polarization potential considerably increased with a decrease of the MgCl₂ in the electrolyte. The polarization potential of the KCl-MgCl₂ system apparently did not differ from that of the KCl-NaCl-MgCl₂ system if equal amounts of MgCl₂ were in both. A. A. Podgorny

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

BC SHERBAKOV A [A]

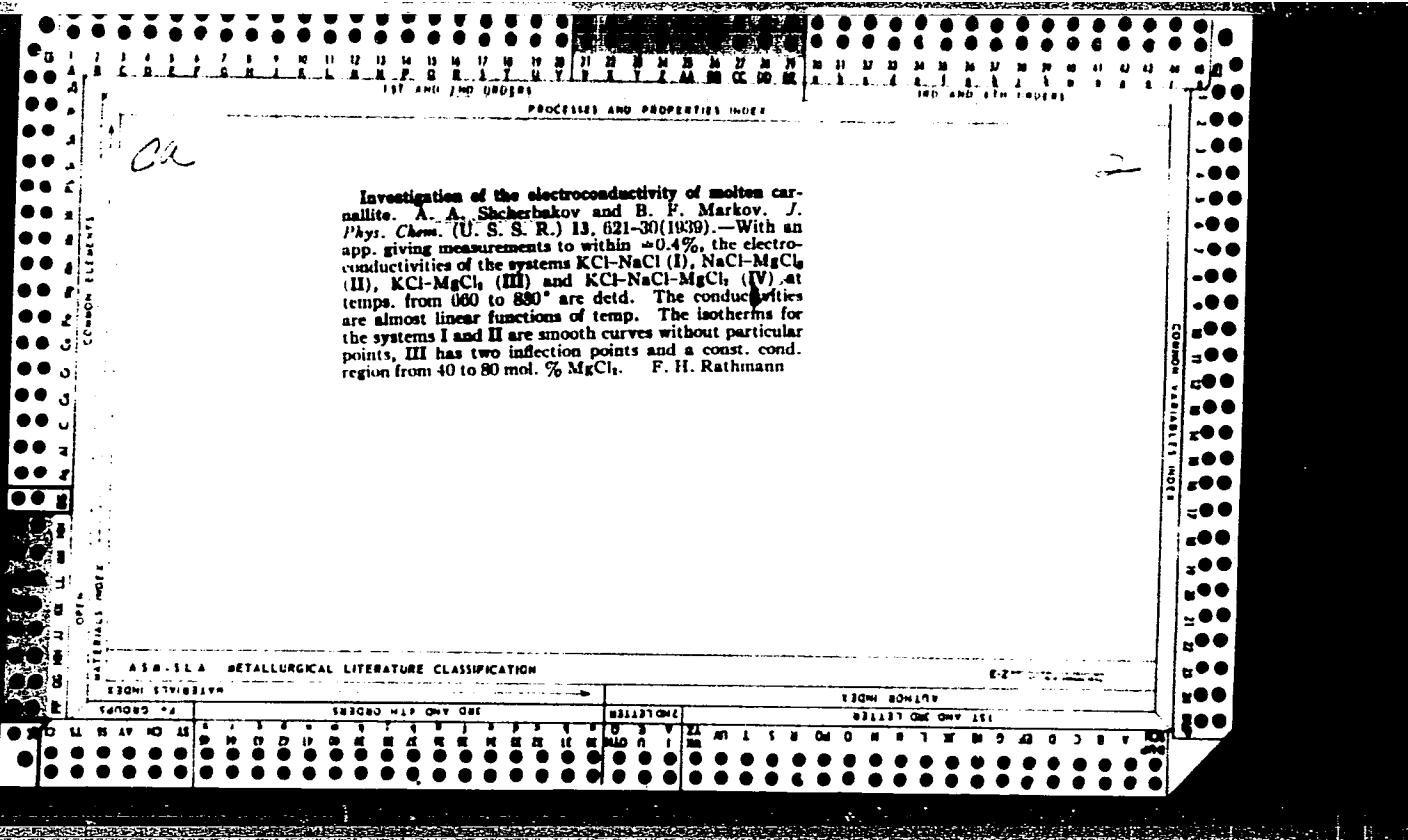
Electrical conductivity of molten system KCl-MgCl₂ in region of possible existence of compound 2KCl·MgCl₂. A. SCHTSCHERBAKOV and B. MARKOV (J. Phys. Chem. Russ., 1939, 13, 33-355).—The conductivity of mixtures containing 27-37 mol.% MgCl₂ indicates the existence of the compound. With rising temp. the equilibrium $MgCl_4 \rightleftharpoons MgCl_3 + 2Cl^-$ shifts towards the right.

R. C.

ASME-SEA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001548820011-1"



SHCHERBAKOV, A. A.

PA 153T5

USSR/Chemistry - pH Analysis
Electrodes, Stable

Nov 49

"Preparation of Silver Chloride Electrodes With
Stable Potential," A. A. Shcherbakov, T. F.
Petrovskaya, Ural Sci Res Chem Inst, 1 1/2 pp

"Zavod Lab" No 11

In cases where mercury-calomel electrodes can-
not be used for keeping continuous check on pH
value, silver chloride electrode with saturated
solution of potassium chloride is satisfactory.
Describes improved way of preparing this
electrode. Includes table.

153T5

Preparation of chlorine-silver electrodes with steady potential. A. A. Shelebakov and T. F. Petrovskaya (Uralsk Chem. Research Inst.), *Zavodskaya Lab.*, 15, 1373-4 (1949). - A Pt electrode is electroplated with Ag from KCl soln. atd. at 100°, contg. enough 10% AgNO₃ to form a slight excess of undissolved AgCl; a pure Ag plate is the anode. The electrolysis is run at 90-100° and at 1-2 milliamp. sq. cm. for 2-3 hrs. The electrode is then placed into a paste of AgCl and satd. KCl soln. mixed with powd. Ag. The electrodes are reproducible within 0.1-0.2 milliv. G. M. Kosolapoff

SHCHEBAKOV, A. A.

35864 SHCHEBAKOV, A. A. I PETROVSKAYA, T. F.

Izotopyleniye khloroserebryankh elektrodey s istoychivym ontentsem alom.
Zavodskaya laboratoriya, 1949, No. 77, s. 1373-74

SO: Letopis' Zhurnal'nykh Statey, Vol. 30, Moskva, 1949

Смирнов, А. А.

А.А. Смирнов. An industrial type of lamp potentiometer. P. 1266

Ural Scient. Res.
Inst. of Chemistry

SO: Factory Laboratory, No. 10, 1060

ca

2

The properties of a cast antimony electrode in its continuous use in pH determination. A. A. Shcherbakov. *Zhur. Anal. Khim.*, 6, 157-66(1961).—Electrodes were prepd. from several kinds of Sb by casting in a steel mold. Smooth and uniformly polished surfaces were obtained only when the metal was melted at not over 640° and kept at this temp. for several hrs. Only electrodes cast from very pure metal gave reproducible results. To obtain reproducible results in continuous pH measurements, the soln. had to flow past the electrode and the soln. had to be astd. with air of a const. partial pressure of O₂. Provided the rate of flow was above 0.1 cm./sec., change in the rate of flow, if not too sharp, did not affect the electrode potential. Under these conditions the error in continuous measuring of pH did not exceed 0.03. The temp. coeff. depends on the pH; the temp. and pH are tabulated for 14-25° and pH 3-10.6.
M. Hoch

1981

USSR/Physical Chemistry - Electrochemistry, B-12

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61156

Abstract: temperature. Temperature coefficient of circuit consisting of Sb-electrode coupled with silver chloride electrode, within interval 40° - 80° changes approximately linearly. Use of Sb-electrode within region 30° - 40° is inconvenient; in practice due to sharp changes of its temperature coefficient within this temperature region.

Card 2/2

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001548820011-1

Mr. and Mrs. John F. Kennedy

President and First Lady
John F. Kennedy
and their family
are deeply appreciated.

W.L.S.

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001548820011-1"

SHCHERBAKOV, Anatoliy Aleksandrovich; TSYBA, L.A., red.; STARODUB,
T.A., tekhn. red.

[Furfurole]Furfurol. Kiev, Gostekhizdat USSR, 1962. 240 p.
(MIRA 16:2)
(Furaldehyde)

ALEKSANDROV, Aleksandr Kapitonovich; SHCHERBAKOV, A.D., redaktor; MARKOVA, A.N., tekhnicheskiy redaktor

[Permanent commission on communal dwellings of the City Council of Workers' Deputies; work practice of the Stavropol Permanent Commission on Communal Dwellings of the City Council of Workers' Deputies] Postoiannaia zhilishchno-kommunal'naia komissiya gorodskogo Soveta deputatov trudiashchikhsia; iz opyta raboty postoiannoi zhilishchno-kommunal'noi komissii Stavropol'skogo gorodskogo Soveta deputatov trudiashchikhsia. Moskva, Gos.izd-vo iurid.lit-ry, 1955.
45. (MLRA 9:1)

(Stavropol--Housing)

SHCHERBAKOV, A.D., inzh.; MINAKOV, M.S., inzh. (g. Skovorodino)

Some hidden coal losses. Zhel.dor.transp. 40 no.11:86 N '58.
(MIRA 11:12)

(Coal) (Locomotives--Fuel consumption)

SOV/91-59-6-8/33

AUTHORS: Persin, Yu.N., and Shcherbakov, A.D., Engineers
TITLE: Accelerated Starting-Up of Preengaged High-Pressure
Turbines
PERIODICAL: Energetik, 1959, Nr 6, pp 12-13 (USSR)

ABSTRACT: Until recently, the 2 VR-25 AEG turbines and 1 VR-20 VVS turbine in a Soviet power plant were warmed-up by stages, taking 8 to 10 hours. By that time, the temperature difference between the flange joints and the cylinder reached 120-150°C. A group of workers of the turbine shops suggested another method. The whole system, from the gate valves on mains III-IV to those on mains I-II, is warmed-up for 1½ hours simultaneously. Then the steam is let in by way of the valves' periphery passages and the rotor is set in motion. Then the system is warmed-up and the turbine is accelerated the following way: at

Card 1/2

SOV/91-59-6-8/33

Accelerated Starting-Up of Preengaged High-Pressure Turbines

150-200 rpm for 1 hour, at 500 rpm for 30 minutes, at 1000 rpm for 30 minutes, at 2200 rpm for 20 minutes and at 2700-3000 rpm for 15 minutes. The increase of revolutions from one rate to another takes 10 minutes. The method of draining the turbine units is changed so that the whole 110 atm of steam in the I and II mains is directed to the bleeding-off steam main. By this method the losses of steam were reduced to a minimum, the temperature difference between the flange joints and the cylinder was cut down to 50-90°C and the starting-up time shortened to 4½ hours. There is 1 circuit diagram and 1 graph.

Card 2/2

SHCHERBAKOV, A.F., inzh.

Using the expansion method in manufacturing shaped parts. Mash.
Bel. no.6:90-93 '59.
(Forging) (MIR_a 13:6)

GOLUBEV, I.Ye., prof.; GRIGOR'YEV, I.F., kand.veterin.nauk; KRAYT'GVA,
V.I., kand.veterin.nauk; GAVRICHENKOV A.I., kand.veterin.nauk;
DOLMATOVICH, V.M., veterinarnyy vrach; SHCHERBAKOV, A.F.,
veterinarnyy vrach

Immunization of swine against cholera with avirulent lapinized
dry strain ASV viral vaccine. Veterinariia 37 no.10:29-32
O '60. (MIRA 15:4)

1. Belorusskiy nauchno-issledovatel'skiy veterinarnyy institut.
(Hog cholera) (Vaccination)

SHCHERBAKOV, A. F. Cand. Geolog-Mineralog Sci.

Dissertation: "Iodine-Bromine Waters of the Chelekon Island and Geological Conditions of Their Formation." Moscow Order of Lenin State U. imeni M. V. Lomonosov. 15 May 47.

SO: Vechernaya Moskva, May, 1947 (Project #17836)

L 32762-66 EWT(m)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/DJ

ACC NR: AP6009930

SOURCE CODE: UR/0413/66/000/004/0131/0131

INVENTOR: Shcherbakov, A. F.

ORG: None

TITLE: Heat treatment of boronized articles. Class 48, No. 179165

SOURCE: Izobreteniya, promyshlennyye obraztay, tovarnyye znaki, no. 4, 1966, 131

TOPIC TAGS: boronizing, surface treatment, heat treatment

ABSTRACT: An author certificate has been issued describing a method of boronizing tools. To maintain the initial state of the surface and increase the wear resistance, the quenching is begun with the boronizing temperature after which the article is dipped in a cooling medium which is excited with ultrasonic vibrations.

SUB CODE: 13/ SUBM DATE: 02Apr64

Heat Treatment

REVIEW OF THE LITERATURE ON THE USE OF COMPUTER TECHNOLOGY IN TEACHING

This is the first time in the history of our country that we have had a president who has been born in the United States.

卷之三

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001548820011-1"

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001548820011-1

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001548820011-1"

SHCHERBAKOV, A.I.

Working models of river basins on geographic study plots. Geog. v
shkole 21 no.3:57-58 My-Je '58. (MIRA 11:6)

1. Novo-Kurlakskaya shkola Voronezhskoy oblasti.
(Geography--Study and teaching)

SHCHERBAKOV, A.I., inzh.

Concerning railroad clocks. Avtom., telem. i sviaz' 5 no. 5:41
My '61. (MIRA 14:6)

1. Orenburgskaya distantsiya signalizatsii i svyazi Kuybyshevskoy
dorogi.

(Clocks and watches)
(Railroads—Equipment and supplies)

ACC NR: AR6020939

SOURCE CODE: UR/0137/66/000/002/V061/V061

AUTHOR: Shcherbakov, A. I.; Nikulin, A. A.; Okorokov, G. N.; Bochkov, D. A.;
Boyarshev, V. A.; Volokhonskiy, L. A.; Polyakov, A. I.

TITLE: The effect of the electric power parameters on a vacuum arc furnace on ingot
crystallization conditions

SOURCE: Ref. zh. Metallurg., Abs. 2V396

REF SOURCE: Elektrotermiya. Nauchno-tehn. sb., vyp. 45, 1965, 34-37

TOPIC TAGS: vacuum arc furnace, alternating magnetic field, constant magnetic field

TRANSLATION: An investigation was made of the effect of electric parameters of a
vacuum arc furnace on crystallization conditions of an ingot, as well as the possibili-
ty of influencing the crystallization process with the use of constant and alternat-
ing magnetic fields. An analytic and experimental correlation between these parameters
and the crystallization of an ingot was determined. The relative depth h/D of a li-
quid wall was equivalent for molds of different dimensions by maintaining the equality
 $I/D = \text{constant}$. The value I/D suitable for a metal with a small 2-phase region ex-
tension may serve as the criterion for selection of the electrical melting cycle. For
a metal with an extended 2-phase region it is necessary to decrease the ingot diameter
and to decrease the operating current as much as possible in order to prevent segreg-

UDC: 621.365.22-982.001.5

Card 1/2

CHINAKAL, N.A., otv. red.; ALEKSANDROV, V.P., kand. ekon. nauk,
red.; OZHEGOV, Yu.P., kand. filos. nauk, red.; SHCHERBAKOV,
A.I., red.

[Some problems concerning the strengthening of the role of
science in the building of communism; materials for a sci-
entific and practical conference] O nekotorykh voprosakh
usilenija roli nauki v stroitel'stve kommunizma; materialy
k nauchno-prakticheskoi konferentsii. Novosibirsk, 1965.
228 p. (MIRA 18:5)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut gornogo
dela. 2. Institut gornogo dela Sibirskogo otdeleniya AN SSSR,
g. Novosibirsk (for Shcherbakov, Chinakal). 3. Kaf'ira filosofii Si-
birskogo otdeleniya AN SSSR, g. Novosibirsk (for Ozhegov).

SHCHERBAKOV, Aleksandr Ivanovich; BOLDOV, M.Ye., red.; YELCHINA,
L.A., red.izd-va; BAGURINA, A.M., tekhn. red.

[Converting logging camps to the electric power supply
from the Sverdlovsk electric power system] Opyt perevoda
lespromkhozov na snabzhenie elektroenergiei ot setei
Sverdlovenergo. Moskva, Goslesbumizdat, 1963. 38 p.
(MIRA 17:3)

KHUBLAROV, Vitaliy Ashotovich; SHCHERBAKOV, Anatoliy Ivanovich;
MIRONOV, T.V., red.; DZYUBA, G.N., tekhn. red.

[The workers' thoughts flashed] I zasverkala rabochaya
mysl'. Moskva, Sovetskaia Rossiia, 1963. 55 p.
(MIRA 17:3)

ACC NR: AP6035746

(A)

SOURCE CODE: UR/0413/66/000/019/0109/0109

INVENTORS: Balandin, M. P.; Volosatov, A. K.; Antonenko, I. Ya.; Bushrets, P. P.;
Zhirnov, A. I.; Ivanov, Yu. V.; Kruglyakov, M. L.; Mordukhovich, A. I.; Popov, F.
K.; Smetnev, S. D.; Fanfaroni, F. I.; Shcherbakov, A. M.; Krivoshey, M. N.

ORG: none

TITLE: A device for broadcasting pesticides and meliorating substances. Class 45,
No. 166787 [announced by All-Union Scientific Research Institute for Mechanization of
Agriculture (Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii sel'skogo
khozyaystva)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 109

TOPIC TAGS: agricultural machinery, agricultural engineering, broadcasting operation,
pesticide, fertilizer

ABSTRACT: This Author Certificate presents a device for broadcasting pesticides and
meliorating substances. The device contains a tank divided into sections, broadcasting
mechanisms, receiving chambers of the fertilizer duct, and a driving mechanism. To
provide for a uniform broadcasting of a material, the broadcasting mechanisms are
made in the shape of cones mounted on a common shaft carrying a spiral with the
opposite direction of coil loops. Every revolving cone may be spring loaded and may

Card 1/2

UDC: 631.333.9

ACC NR: AP6035746

be contained, together with a receiving chamber, in a common casing.

SUB CODE: 02, ^{06/} ~~12/~~ SUBM DATE: 23Apr65

Card 2/2

SHCHERBAKOV, A.M., inzh.

Mechanized application of organic fertilizers. Trakt.i sel'-
khozmash. no.1:44-47 Ja '60. (MIRA 13:4)
(Fertilizer spreaders)

SHCHERBAKOV, A.M., inzh.

STS-15 self-loading seed and fertilizer drill. Trakt. i sel'khozmash.
32 no.1:36-37 Ja '62. (MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystven-
nogo mashinostroyeniya.
(Fertilizer spreaders) (Drill (Agricultural implements))

SOBOLEV, G.A.; SHCHEBAKOV, A.M.; AKISHIN, P.A.

Rotational spectrum and dipole moment of the vinylacetylene
molecule. Opt. i spektr. 12 no.1:147 Ja '62. (MIR 15:2)
(Butenyne—Dipole moments)
(Butenyne—Spectra)

SHCHEBROV, A.I.; CHERNYAK, Kh.M.; GOL'DMAN, V.B., nauchn. red.
CHIGAREVA, E.I., red.; KOVALEVSKAYA, I.F., tekhn. red.

[Mechanization of the placement of fertilizers] Mekhaniza-
tsiya vnosenia udobrenii. Moskva, 1963. 83 p. (Kompleks-
naia mekhanizatsiia i avtomatizatsiia predpriiatii. Seriia
1-63) (MIRA 17:1)

1. TSentral'nyy institut nauchno-tehnicheskoy informatsii po
avtomatizatsii i mashinostroyeniyu.

PRILIPKO, L.I.; SHCHERBAKOV, A.N.

Gomphocarpus fruticosus (L.) an accidental plant of African origin on the Apsheron Peninsula. Dokl. AN Azerb. SSR 19 no.3: 57-59 '63. (MIRA 17:8)

1. Institut pochvovedeniya i agrokhimii AN AzSSR i Institut botaniki AN AzSSR. Predstavлено akademikom AN AzSSR V.R. Volobuyevym.

PEZIK, M. O., SHCHERBINKA, AP.

Grinding and Polishing

Electric spindle for internal grinders. Stan. i instr., 23, no. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952 Unclassified.

137-58-6-13152

Self-diffusion in α Fe

β -ray counter was 1.5%. Values for D were compared at 1100°C upon removing layers off a given specimen, measuring the integral γ activity, taking imprints, and measuring the β activity. Results for the first method: $D \approx 4.3 \cdot 10^{-10}$ with a 25% error; for the second method: $D \approx 4.8 \cdot 10^{-10} \text{ cm}^2/\text{sec}$ with a 3% error. Self-diffusion was studied in the range of 705-900°. At 705-745° the presence of boundary diffusion was noted. For volumetric self-diffusion $D \approx 3.2 \exp(-56500/RT) \text{ cm}^2/\text{sec}$. Increasing Cr content to 1.5% raises Q and D_0 , whereas a further increase in Cr to 15% brings about a decrease of Q and D_0 down to the values characteristic for pure Fe. Alloying with up to 0.12% Mo lowers D. Increasing Mo up to 6% increases Q monotonously.

I. D.

1. Iron--Diffusion
2. Diffusion--Test results
3. Iron isotopes (Radioactive)
--Applications

Card 2/2

KIRPICHNIKOV, A.A., kand.tekhn.nauk; SHREYBER, M.I., zasluzhennyj vrach
RSFSR; SHCHERBAKOV, A.P.

Refuse-sorting and refuse-processing station in Orekhovo-Zuyevo.
Gig. i san. 26 no.8:70-75 Ag '61. (MIRA 15:4)

1. Iz sektora sanitarnoy ochistki gorodov Akademii kommunal'nogo
khozyaystva imeni K.D.Pamfilova i Orekhovo-Zuyevskoy gorodskoy
sanitarno-epidemiologicheskoy stantsii.
(OREKHOVO-ZUEVO—REFUSE AND REFUSE DISPOSAL)

PROCESSES AND PROPERTIES INDEX
100 AND 110 DEGREES

III

The metabolic rate and duration of life of *Drosophila*.
IV. The effect of temperature. A. P. Slicherbukov,
Arch. gen. biol. (U. S. S. R.) 45, No. 3, 73-85 (in English
85-95), 1937). — The mean duration of life (I) and CO₂ pro-
duction (II) of *Drosophila melanogaster* were studied at 5°,
7°, 10°, 11°, 24°, 30° and 34°. II increases with temp.,
from 0.8 mg. per hr. at 5° and 8.9 mg. per hr. at 34°. A
definite optimum for I was found at 14°, about 30 days.
The decline in I is particularly abrupt on the cold side of
this optimum temp. No definite correlation between I
and II could be established. W. A. Perlzweig

AEC SLA - METALLURGICAL LITERATURE CLASSIFICATION

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001548820011-1

SHCHERBAKOV, A.F.

Hydrochemical conditions of the Volga, Mologa, and Sheksna rivers in
the area of the Rybinsk water reservoir. Trudy Biol. Stantsii "Borok,"
Akad. Nauk S.S.R. '50, No.1, 7-34.
(MLRA 3:11)
(CA 47 no.13:6581 '53)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001548820011-1"

CONFIDENTIAL

Clu's photo, Lake - Fresh-Water Nauma

Reportability of publications on Lake "Nauma", Army Scientific. offic., 3, 1951.

Monthly List of Russian Accessions, Library of Congress, November 1958, UNCLAS UNIFIED

SHCHERBAKOV, A. P.

USSR 600

Biological Laboratories

Biological station at Lake Glubokoye. Priroda 41 no. 3:84-87 Mr '52.

9. Monthly List of Russian Accessions, Library of Congress, July 2 1952. Unclassified.

SHCHERBAKOV, A.P.

Production of organic matter of phytoplankton in the Glubokoye Lake.
Trudy Gidrobiol. ob-va 5:224-253 '53. (MLRA 7:5)

1. Biologicheskaya stantsiya na Glubokom ozere Instituta morfologii
zhivotnykh Akademii nauk SSSR.
(Glubokoye Lake--Phytoplankton) (Phytoplankton--Glubokoye Lake)

SHCHERBAKOV, A.P.; MURAGINA, T.A.

Breathing rate of the crustacea *Apus cancriformis* Schäff. Zool. zhur. 32 no. 5:844-847 S-0 '53.
(MLRA 6:10)

1. Biologicheskaya stantsiya na Glubokom ozere Instituta morfologii zhivotnykh
Akademii nauk SSSR.
(Crustacea)

SHCHERBAKOV, A.P. (Moscow)

New data on photo- and geotaxis in the lower Crustacea. Usp.
sovr.biol.40 no.1:88-93 J1-Ag '55. (MLRA 8:10)
(CRUSTACEA) (LIGHT--PHYSIOLOGICAL EFFECT)
(GRAVITY--PHYSIOLOGICAL EFFECT)

SHCHERBAKOV, A.P.

Productivity of zooplankton in Lake Glubokoye. Trudy Gidrobiol. ob-va
7:237-270 '56.

1. Biologicheskaya stantsiya na Glubokom ozere Instituta morfologii
zhivotnykh imeni A.N.Seventsova Akademii nauk SSSR.
(Glubokoye, Lake--Zooplankton)

SHCHERBAKOV, A.P.

Significance of the dimensional characteristics of hydrobiological objects; authors abstract. Biul.MOIP. Otd.biol. 61 no.5:102 S-0 '56.
(MLRA 10:2)

(BIOLOGICAL RESEARCH)

SHCHERBAKOV, A.P.

Productivity of zooplankton in Lake Glubokoye. Report No.2: Plankton rotifers. Trudy Gidrobiol. ob-va 8:163-182 '57. (MIHA 11:3)

1. Biologicheskaya stantsiya na Glubokom ozere Instituta morfologii zhivotnykh AN SSSR.
(Glubokoye, Lake (Moscow Province)--Rotifera)

SHCHERBAKOV, A.P.

Modified Liakhovich's apparatus for quantitative estimation
of microfauna of aquatic vegetation. Trudy Gidrobiol. ob-va
9:387-390 '59. (MIRA 12:9)

1. Biologicheskaya stantsiya na Glubokem ozere Instituta morfologii
zhivotnykh AN SSSR.
(Hydrobiological research--Equipment and supplies)

SHCHERBAKOV, A.P.

Productivity of the animal population of plant growths in the shore area of Lake Slutskoye. Trudy Gidrobiol. st.-va 11:285-298 '61.
(MIRA 15:1)
I. Biologicheskaya stantsiya na Glubokom ozere Instituta morfologii zivotnykh AM SSSR, Moskva.
(Glubokoye, Lake--Fresh-water fauna)

S/081/63/000/002/023/080
B166/B138

AUTHOR: Shcherbakov, A. P.

TITLE: Hydrochemical description of Glubokoye Lake

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1963, 163, abstract 2E94 (Tr. Vses. gidrobiol. o-va, v.12, 1962, 5-41)

TEXT: With an area of ~60 hectares the mean depth of the lake is 9.3 m, its maximum depth 32 m. About 8% of the bottom is occupied by littoral vegetation. The mud of the deep part is low in organics. The lake is of the mesotrophic type. The dense residue of the water is 50-60 mg/l. Its contents are (mg/l): Ca^{2+} ~9, Mg^{2+} ~2, HCO_3^- ~30, SO_4^{2-} ~2, Cl^- traces.

The lake's oxygen regime shows insufficient O_2 saturation in the spring and fall mixing periods, not usually exceeding 80-90%. In the summer the oxygen saturation of the water of the eolimnion is 85-95%, but sometimes, due to the dying off of phytoplankton, it drops to 60%. From June on development of an oxygen minimum in the metalimnion is characteristic. In July - August the oxygen content is frequently <1 mg/l at a depth of

Card 1/2

Hydrochemical description of ...

S/081/63/000/002/023/088
B166/B138

4-6 m. In summer an anaerobic zone occurs in the lower part of the hypolimnion and in certain years this spreads to the whole of the hypolimnion. In these years H₂S up to 0.7 mg/l was noted at maximum depths. Free CO₂ is present at 3-6 mg/l during mixing periods, and during stagnation there is up to 10-12 mg/l at great depths. The pH of the water at these periods is 6.6-6.9 and 6.0-6.3 respectively. In the epilimnion the pH of the water can reach 9.2-9.3 during intense photosynthesis. The Fe content at mixing periods is 0.3-0.4 mg/l, at the end of the summer stagnation it is down to 2 mg/l, in winter it reaches 8-14 mg/l. Insufficient study was made of the P and N content. The water of the lake is rich in humic matter and has a chrominance in the upper layers of 70-170°, and at depth of up to 200-250°. The permanganate oxidizability of the water is on the average 14, and the chromic 32-34 mg/l. [Abstracter's note: Complete translation.]

Card 2/2

ZENKEVICH, L.A., otv. red.; BELYAYEV, G.M., red.; VINBERG, G.G.,
red.; GAYEVSKAYA, N.S., red.; ZHADIN, V.I., red.;
REZNICHENKO, O.G., red.; SHCHERBAKOV, A.P., red.

[Change in the biological complexes of the Caspian Sea
during the last decade] Izmenenie biologicheskikh
kompleksov Kaspiiskogo moria za poslednie desiatiletiiia.
Moskva, Nauka, 1965. 255 p. (MIRA 18:6)

1. Vsesoyuznoye gidrobiologicheskoye obshchestvo. 2. Chlen-
korrespondent AN SSSR (for Zenkevich).

SHCHERBAKOV, A. P., POPOV, A. A., FEDOROV, A. E., and MIRMEL'SHTEYN, V. A.;

"Macro-structure Characteristics of Cast Steel," Priizvestvo stali (Steel Production) Moscow, Metalliz, 1964, p.

PURPOSE: This book published on the 25th anniversary of the Ural mechatravod (Ural Heavy Machine-building Plant imeni S. Ordzhonikidze) is intended for engineers, technicians and scientific workers concerned with the production of steel.

BOV/137-59-7-1460

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, No 7, p 60 (USSR)

AUTHORS: Popov, A.A., Mirmel'shteyn, V.A., Fedorov, A.B., and Shcherbakov, A.P.

TITLE: On the Character of Macrostructure in Cast Steel

PERIODICAL: Sib. statey. Ural'skiy z-d tsvet. mashinostr. im. S. Ordzhonikidze, 1958,
Nr. 3, pp 139 - 149

ABSTRACT: During the cooling of various steel grades, from the final solidification to room temperature, processes may take place complicating the identification of the initial structure. The initial structure is different from the secondary structure observed in cooled off steel. Formation of the secondary structure caused by $\delta \rightarrow \gamma$ conversion can frequently be observed in various steel grades, including some austenitic steels. Formation of the secondary structure is furthered by Cr, Mo, W, Ti, Nb; and its elimination is furthered by C, Ni, Mn. The behavior of steel during mechanical heat treatment is determined by the initial structure. Its determination is necessary in order to obtain a proper insight in the character of crystallization, proceeding in the ingot or in the casting. Proper ✓

Card 1/2

Ca

POPOV, A.A.; MIRMEL'SHTEYN, V.A.; FEDOROV, A.B.; SHCHERBAKOV, A.P.

Secondary macrostructure as a method of studying the kinetics of
steel ingot crystallization. Met. i metalloved. no.2:3-15
'59. (MIRA 13:6)

1. Ural'skiy zavod tyazhelogo mashinostroyeniya.
(Steel ingots) (Crystallization)

PUNCTUATED AND PUNCTUATED FORM

15

Organic fertilizers for oats and flax. Z. V. LOGVINNOVA AND A. P. SUCHEBRAKOV. *Izobreniya i Uprugai (Fertilizers and Crops)* 2, 476-82 (1930). N sources from meat scrap, horn meal, horn shavings, burned horn meal, blood meal, slime from intestines feathers and down, oil meal, tobacco dust and wool combings were compared in pot expts. with NaNO_3 and $(\text{NH}_4)_2\text{SO}_4$ on oats and flax. Two sets of pots with 4.5 kg. of soil were set up. One set received 0.5 g. N, the other, 1.0 g. All pots received P in the form of Na_2HPO_4 and K in the form of K_2SO_4 . The results with the oats were: the slime gave almost as good results as the mineral forms of N. The meat scrap, horn meal, horn shavings, burned horn, blood meal, feathers and down and oil meal fell behind the mineral N when 0.5 g. of N was added. With the double quantity of N these materials were just as efficient as the mineral N. The dried blood, tobacco dust and wool combings were far behind the mineral N even when 1.0 g. of N was added. The residual effects of the various org. forms of N on the succeeding crop were far superior to those of the mineral N. With flax the 0.5 g. of org. N was just as good as the mineral N; with the 1.0 g. quantity the org. N was superior to the mineral forms of N. The second crop on the flax pots was oats, and since the flax did not utilize the mineral N, it was effective on the oats giving higher yields than the residual org. N. The quality of the flax was also better with the org. forms of N.

J. S. JOPPE

ASH-VLA RETENTION-LITERATURE CLASSIFICATION

The problem of various calcium:magnesium ratios in plant development. A. P. Stiffberkay, *Trans. Sci. Acad. U.S.S.R. Ser. Earthworms Insects Fungi* (U. S. S. R.) No. 130, 64-78 (1946). —Put expts. with *flax* show that increased addition of Ca decreased the yield. Increased amounts of Ca and Mg decreased the yield more than Ca alone. A separated supply of Ca and Mg (by the method of isolation cultures whereby one portion of the roots gets Ca, the other Mg) increased the yield. The Ca:Mg ratio in the plants on the "isolated cultures" varied little with the quant. variation of the supply. In the ordinary cultures an increased supply of Ca increased the Ca:Mg ratio in the plant. No definite correlation was found between the Ca:Mg ratio in the soil and the Ca:Mg ratio in the plant.

ASM-SEA METALLURGICAL LITERATURE CLASSIFICATION

卷之三

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001548820011-1"

Effect of potassium on the water-retaining properties
of tobacco-1 plant tissues and on the carbohydrate
metabolism of the leaves. A. P. Shchiglova-Pon
Cont. Soc. Sc., Saratov 2, 249-60 (1937). Irrigation of
tobacco leaves with solns. of K salts caused increase in
transport of H₂O to the leaves with smaller subsequent loss,
the former effect being greater with K₂SO₄, and the latter
with KCl. The effects were intensified by addn. of glucose to
the solns. Photosynthesis of all forms of leaf
sugars was increased by K salts, and breakdown of
these sugars in absence of light was inhibited.

B. C. P. A.

11d

ASVS-LA - METALLURGICAL LITERATURE CLASSIFICATION

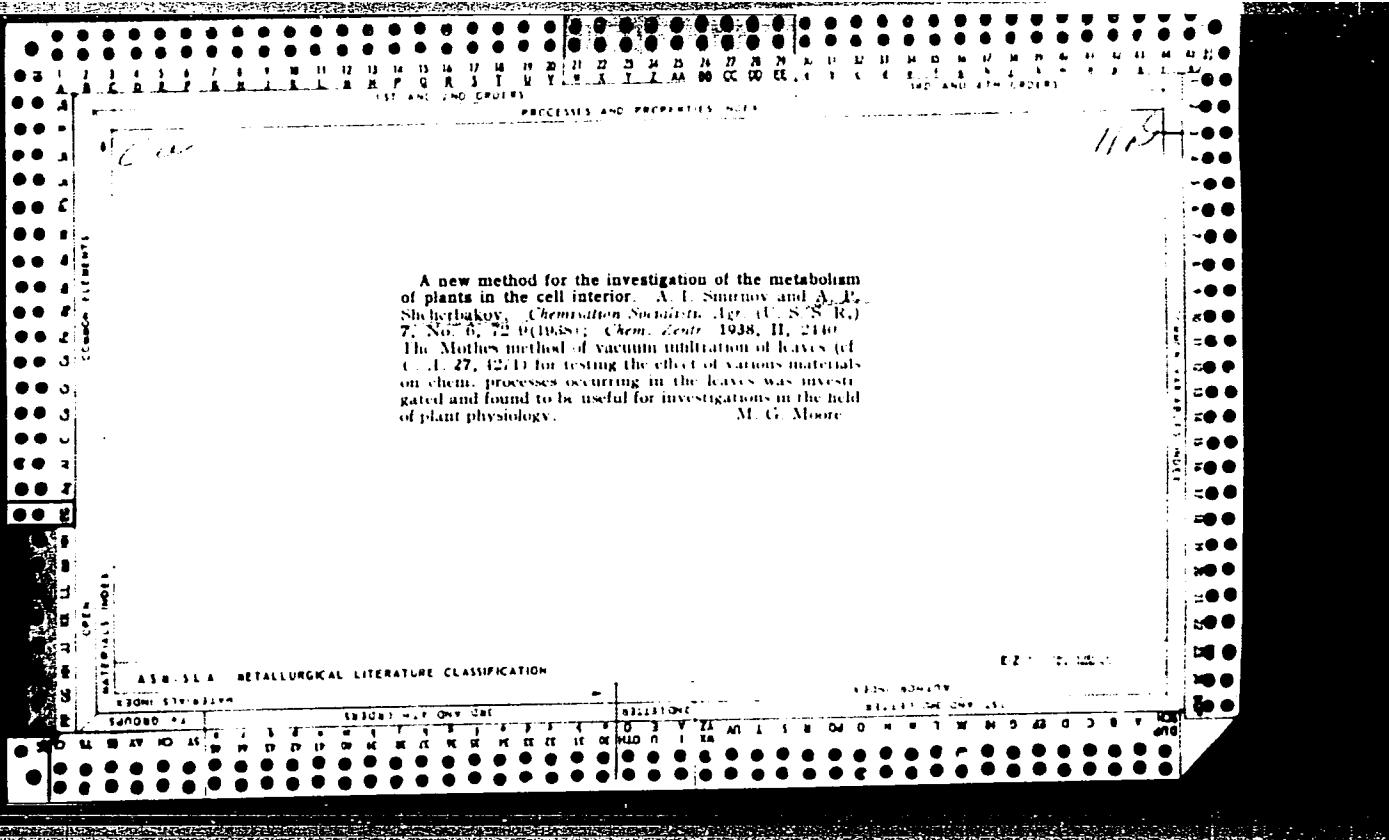
E2

Effect of potassium on carbohydrate metabolism in the absence of photosynthesis. A. P. Sheherbakov. *Bull. acad. sci. U. R. S. S., Classe sci. math.-nat., Ser. Biol.* 1938, 329-52 (in English, 353-4); cf. *C. A.* 33, 6887. — The loss of dry substance in the whole plant was greater in plants which received no K, or only a tenth of the normal K supply. The carbohydrate content under K deficiency was lower during the first 6 days; towards the 10th day, the picture was reversed, and on the 12th day, identical amounts of total carbohydrate were found in all the expts. Effect of potassium on carbohydrate metabolism in peas under conditions of normal daylight. *Bul.* 355-79 (in English, 379-80). — The amt. of monoses decreased with K deficiency, whereas the amt. of sucrose was in direct proportion to the K supply. Reserve carbohydrates of the cotyledons were consumed more intensively in plants suffering from a K deficiency. H. Priestley

Effect of potassium on the carbohydrate metabolism of
tobacco leaves. A. P. Shcherbakov. *Biokhimya* 3,
417-20 (1938). Tobacco leaves which subjected to salts
of K salts by the method of vacuum infiltration showed an
increased water storage and better water retention. The
synthesis of org. matter was accelerated, in the light, and
slowed up in the dark. B. Voden

Inst. of Soil Fertilizers and Insects-fungicides, N 24-2

ARMED SERVICES METALLURGICAL LITERATURE CLASSIFICATION



Physiological role of elements indispensable for plants in minute amounts. A. P. Shcherbakov. *Compt. rend. acad. sci. U.R.S.S.* 21, 150-93 (1938) (in English). Comparative growth exprs. with buckwheat seed in sand cultures supplied with different doses of N and P in Hellriegel's medium were made with and without addn of B, I, F, Mn, Cu, Zn and Al. The data, given in a table, show that in all sets with microelements the yield of green bulk and especially of seed was relatively higher; even with half an amt. of N and P the yield of seed was greater than, or equal to, that obtained with full dose of N and P but without microelements. In plants given microelements the ratio of total N increased in the seed and dropped in the green bulk, and the ratio of protein N in total N was very high. No marked change in the P ratio was observed. The ratio of water-sol. P in the H₂O acidulated by acetic acid decreased. The microelements enable the plant to make better use of mineral N and P and of the N and P stored in the culture soln. A. H. K.

The effect of ethylene on the direction of invertase action in tobacco leaves. A. P. Shcherbakov. *Bull. Acad. sci. U. R. S. S., Ser. biol.* 1939, 795 (88 in English, 1958). In one series of expts. the leaves were infiltrated with glucose, in the other with sucrose. Both series were exposed to 1,1000 ethylene at 24-27°, humidity 85% and 75%, resp., for intervals of 1.5, 3 and 5 hrs., and 3.6 and 12 hrs., resp. The leaves were weighed before and after exposure and the air was changed every 3 hrs. in both the exptl. and control chambers. The reducing power was determined by 7 min. of hydrolysis with HCl. The action of invertase and of phenoloxidase, the uptake of O_2 and elimination of CO_2 were also detd. In the glucose series, during the first hrs. of exposure the formation of sucrose (I) and monosaccharides (II) increases. Later the carbohydrate content decreases. In the sucrose series the leaves show a somewhat stronger hydrolysis of I, but the loss of I and II is greater in ethylene-treated leaves than in the control leaves. The synthesizing and hydrolyzing effect of invertase was enhanced by ethylene, and the activity of phenoloxidase and the respiration were higher in both series. The synthesis of I was accompanied by a greater activity of oxidizing processes. The data indicate that in glucose-treated leaves ethylene causes a secondary synthesis of an unknown sugar as a byproduct of hydrolysis of I. T. Lanes